THURSDAY, JULY 23, 1908.

PATENTS AND THE PUBLIC.

The Patents and Designs Act, 1907. By James Roberts and H. Fletcher Moulton. Pp. xiv+128. (London: Butterworth and Co., 1907.) Price 4*s.* net.

IN the preface to this book the authors state that it does not pretend to be a treatise on patent law, but that its object is to give assistance to the reader in the interpretation of the new enactments and to point out their practical effects. The authors have not discussed the wisdom of the many changes in the law introduced by the new Act, nor have they attempted to dogmatise on points which must necessarily, on account of the language employed in framing the new provisions, await judicial decision. They have, however, indicated where these points lie, and have directed attention to both aspects of the questions involved so as to enable persons dealing with patents to appreciate the dangers ahead.

Among the many changes to which the authors direct attention are the important alterations in the jurisdiction and powers of the Comptroller. The jurisdiction of the Comptroller as to the granting of patents has been extended by giving him the power, under section 7, to refuse a patent altogether if he is satisfied that the invention claimed has been wholly and specifically claimed in any specification published before the date of the application for the patent in question. In cases of opposition under the Act of 1883, the Comptroller had power to refuse to grant a patent if the invention had already been patented in this country, and the new Act extends this practice in opposition cases to cases coming under the official search instituted by the Act of 1902. The words "wholly and specifically claimed" would appear to indicate that it is intended to give the Comptroller power to refuse under this provision only patents for those inventions which have been described and claimed in prior specifications in substantially identical terms. This new power of the Comptroller should prove to be of considerable benefit to the industrial community in that it will tend to prevent the increase of worthless patents, of which there are such a large number in existence.

The jurisdiction of the Comptroller as to the granting of patents has been also extended by enlarging the grounds of opposition before him, for by section 11 any person may give notice of opposition on the ground that the nature of the invention or the manner in which it is to be performed is not sufficiently or fairly described and ascertained in the complete specification. Hitherto it has been the practice that a member of the public who had no special interest was not entitled to oppose the grant of a patent, but the question of what persons are entitled to be heard in opposition now becomes of greater importance, as it is only such persons as are entitled to oppose under this section who are entitled to petition for the revocation of the patent under section 26. The two distinct views which may reasonably be taken of the right to oppose under this section are fairly stated by the authors, but it is not at present clear which view will finally be adopted. This section should result in a desirable improvement of the descriptions contained in specifications, for unless the nature of the invention and the manner in which it is to be performed are sufficiently and fairly described and ascertained in the complete specification, this may be made a ground of opposition to the grant.

Two important changes in the practice of developing an invention are introduced by the new Act. Under section 16, an applicant who has put in two or more provisional specifications for inventions which are cognate or modifications one of the other may file one complete specification in respect of the whole of the applications, so that by this section an applicant may, as the authors state, "file several provisional specifications as improvements occur to him, and in the event of the Comptroller allowing them to be included in one patent, he does not risk invalidity by reason of disconformity." Under section 19 a patent of addition may be applied for in respect of any improvement in or modification of the invention for which an ordinary patent has been applied for. The advantage of introducing patents of addition is that they enable a patentee to develop his invention at less cost than would be incurred by taking out separate patents for each improvement, as no renewal fees are payable in respect of a patent of addition.

The practice on a petition for revocation of a patent has been very much altered by the new Act. Revocation of a patent may be obtained on petition to the Court as hitherto, but, in addition, the Comptroller may now revoke a patent on various grounds. In the first place, under section 26, any person who would have been entitled to oppose the grant of a patent may, within two years of the date of the patent, apply to the Comptroller for an order revoking the patent on any ground on which the grant might have been opposed; so that under this section an opponent may come in to petition for revocation, and thus subject the patentee to the annoyance of what is practically an opposition considerably after the time has expired in which an opposition could have been entered under the old procedure. Secondly, under section 27 any person may apply to the Comptroller for the revocation of a patent on the ground that the patented article or process is manufactured or carried on exclusively or mainly outside the United Kingdom. The authors state that:—

> "An attempt was made to attain the object of this clause by section 3 of the Act of 1902, but that section has proved practically a dead letter, partly in consequence of its ambiguity and partly because of the heavy expense it entailed on a petitioner. In the year 1906, out of 14,700 patents issued, 6500 were granted to foreigners; in the case of patents for dyes the proportion was about 95 per cent. In many cases these inventions were worked abroad exclusively, and the patented articles, or substances made by the patented processes, were imported in large quantities into this country, the British patents being used merely for the purpose of closing the market to persons other than the patentee and his licencees."

Such a state of affairs was in direct opposition to the spirit of our patent law, and as the obvious remedy

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of forfeiture of the patent, on account of the importation, under which the imported articles were made was prohibited by the fifth article of the International Convention, section 27 was introduced to meet the difficulty. By this section, which will come into operation on August 28, the Comptroller will have to consider the application for revocation, and if after inquiry he is satisfied that the allegations contained in it are correct, and unless the patentee proves that the patented article or process is manufactured or carried on to an adequate extent in the United Kingdom, or gives satisfactory reasons why the article or process is not so manufactured or carried on, the Comptroller may make an order revoking the patent either forthwith or after a reasonable interval.

Much has been written lately as to the benefits to this country likely to be produced by this section, and in some cases there has been considerable exaggeration of the probable effects. But although it is almost impossible to state accurately the effects of the section until it is discussed in actual practice, there is no doubt of the fact that foreign inventors are now showing a greater desire than ever before to have their patents worked in the United Kingdom. In and about London, for instance, sites are being acquired for the erection of factories for the manufacture of articles patented by foreign inventors, while in Leicester the manufacture of machinery for making boots and shoes is being largely extended, and a factory has been leased for the manufacture of safety razors. The advertisement pages of the trade journals and of the illustrated official journal of the Patent Office also indicate the anxiety of many foreign inventors to have their patents worked in the United Kingdom in order to avoid revocation.

Perhaps the most interesting case under this section may prove to be the case of the German chemical industries. It is well known, of course, that although the inventor of the original artificial dye was Perkin, the aniline dye trade has been transferred almost entirely to Germany, the proportion of patents in dye cases granted to foreigners being in 1906 about 95 per cent. Most of these patents are under the control of a few large syndicates, and at least one of these syndicates is making active preparation for working their patents in this country. The extent to which this working will be insisted on is, at present, quite problematical, as, under the section, the Comptroller need make no order revoking the patent if the patentee gives satisfactory reasons why the article or process is not manufactured or carried on in this country. What is a satisfactory reason? Is it a satisfactory reason that the article or process can be manufactured or carried on more cheaply abroad? Is it a satisfactory reason to have advertised for someone to work the patent and to have received no offer? These and many other questions at once arise and present difficulties which can, apparently, be settled only in practice.

The authors deal with the many minor changes in the law introduced by the new Act, and, although the comments might with advantage have been more lavish, the book may be recommended as a clear and concise discussion of the new enactments.

A HISTORY OF GEOGRAPHICAL EVOLUTION.

Die Entwicklung der Kontinente und Ihrer Lebewelt ein Beitrag zur vergleichenden Erdgeschichte. By Dr. T. Arlt. Pp. xviii+730. (Leipzig: W. Engelmann, 1907.) Price 20 marks.

THE explanation of the obvious plan in the distribution of oceans and continents has long been one of the ideals of geography. Bacon insisted that one of the main duties of geographers was to solve the riddle of the geographical homologies, and at length a solution has been advanced that has made widespread progress into favour during recent years—the daring and once ridiculed tetrahedral theory of Lowthian Green. That theory, simply stated, is that hard-shelled spheroidal bodies that are contracting owing to internal shrinkage tend to become flattened on four faces; that the spheroid undergoes a tetrahedral deformation as the unshrinkable shell sags down after the contracting interior, and that this shape develops as the body thus most easily gets rid of the excess of surface. The extent of this deformation is limited in a revolving mass, as the effects of rotation oppose the deformation and tend to restore the spheroidal form. Modern developments of the tetrahedral theory attribute to this struggle between tetrahedral collapse and spheroidal recovery an alternate advance and retreat of the sea upon the land, as the ocean basins are alternately deepened and shallowed; and the occurrence of epochs of intense volcanic activity, following long intervals of quiescence, is attributed to disturbances that restore stability to the earth after a period of slow deformation has rendered the crust unstable.

The ultimate test of this theory is its agreement with the records of historical geology, and that test Dr. Arlt applies to it in the large volume of some 730 pages and an atlas of twenty-three plates. The author marshals a very varied array of evidence collected from geography, stratigraphical geology, palæontology, and geodesy. Dr. Arlt shows he has studied an enormous and varied literature, and is capable of handling petrographical, biological, and mathematical evidence.

The book begins with a brief reference to the theory of the permanence of ocean and continent which was much in vogue from 1876 to 1890. If that theory be true, the tetrahedral theory is unnecessary; for one of the astronomical theories which attribute the distribution of the continents to agencies that affected the earth in pre-geological times might be adequate. But, as Prof. G. H. Carpenter has recently remarked, "there can be no doubt that the trend of modern speculation is against the doctrine of the permanence through past ages of the great ocean basins of the present day" ("Scottish National Antarctic Expedition, Report on Scientific Results," vol. v., p. 57); and in accordance with most recent work, Dr. Arlt shortly and emphatically dismisses the theory as inconsistent with the facts. He then proceeds to state the methods of palæogeography They are the petrographic—the study of sedimentary rocks and deep-sea deposits—and the biological—the study of the existing and former distributions of animals and plants.

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